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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/717,494

11/21/2003

Chien-Hung Kuo

3092-394

7598

7590

06/13/2006

TROXELL LAW OFFICE

SUITE 1404

5205 LEESBURG PIKE

FALLS CHURCH, VA 22041

EXAMINER

DINH, DUC Q

ART UNIT

PAPER NUMBER

2629

DATE MAILED: 06/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/717,494	<b>Applicant(s)</b> KUO ET AL.	
	<b>Examiner</b> DUC Q. DINH	<b>Art Unit</b> 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. This Office Action is responsive to the Application filed on November 21, 2003. Claims 1-5 is currently pending and being examined.

***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Grave (U.S Patent No. 6,039,451).

In reference to claim 1, Grave discloses (in Fig. 2) a back light module (100), comprising:  
a plurality of light tubes (105), being disposed on a first vertical axial line to form an arrangement of the light tubes aligning with each other vertically; and  
an intermediate light tube (110), being disposed on a second vertical axial line and between two neighboring ones (105) of the light tubes (col. 3, lines 1-16).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grave (U.S. Patent No. 6039,451).

In reference to claims 2 and 3, Grave discloses a distance between the first vertical axial line and the second vertical line is greater a light tube diameter and the distance between two neighboring light tubes on the first vertical axial line is less than five times of a light tube diameter thereof (see Fig. 2 and 3). Grave does not specifically discloses a distance between the first vertical axial line and the second vertical line is greater than one fourth of a light tube diameter and the distance between two neighboring light tubes on the first vertical axial line not is less than five times of a light tube diameter thereof.

Absent a showing of criticality and/or unexpected results, it would been obvious to one having ordinary skill in the art shift the location of the light tubes as desired as was judicially recognized with In re Japikse, 86 USPQ 70 (CCPA 1950) which recognizes that to shift location well known parts is normally not directed toward patentable object matter.

7. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grave in view of Akahane et al. (U.S Patent No. 5,931,555), hereinafter Akahane.

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In reference to claim 4, Grave discloses in Fig. 2 a display device (200) comprising:

flat display (200);

a back light module comprising a plurality of light tubes (105), being disposed on a first vertical axial line to form an arrangement of the light tubes aligning with each other vertically; and

an intermediate light tube (110), being disposed on a second vertical axial line and between two neighboring ones (105) of the light tubes (col. 3, lines 1-16).

Grave does not disclose a diffuse plate has, being disposed between the display panel and the light tubes of the back light module, wherein the diffusion plate has a part nearer the light tubes is treated to be hard for light penetration and has a part farther from the light tubes is treated to be easy for light penetration.

Akahane discloses a diffusion system for a flat display device such as an Liquid crystal Display (see Fig. 3) with a diffusion system (see Fig. 9) diffusion has a part (5B) nearer the light tubes (6) is treated to be hard for light penetration and has a part farther from the light tubes is treated to be easy for light penetration (the area ratio of elements 5B are smallest at the four corners of the rectangular plate, i.e. the density of the elements is treated thicker 5B near the light tubes 6 that made the light harder for light penetration, and increase in area ratio progressively toward the center of the plate wherein they are the largest, i.e. the thinner elements 5B makes light easy to penetrate toward the center; col. 9, lines 10-30; Fig. 9).

It would have been obvious for one of ordinary skill in the art at the time of the invention to provide the diffusion system between the display panel the light tubes of the of the backlight module in the device of Grave as taught by Akahane because it would provide a high quality

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illumination background lighting apparatus which achieves a high level of brightness with uniform luminescent distribution across the display device (col. 3, lines 35-38 of Akahane).

In reference in claim 5, Akahane discloses the diffusion plate at a surface thereof is printed net points with the part nearer the light tubes being provided with thick net points and the part farther the light tubes being provided with thin net points (Fig. 9 shows the ratio of elements 5B, i.e.: printed net points, are provided thicker at the part nearer the light tubes 6 and thinner at the center at the center of the panel).

It would have been obvious for one of ordinary skill in the art at the time of the invention to provide the diffusion system with elements ratio thicker at the center of the light tubes and thinner at the farther of the light tubes in the device of Grave as taught by Akahane because it would provide a because it would provide a high quality illumination background lighting apparatus which achieves a high level of brightness with uniform luminescent distribution across the display device (col. 3, lines 35-38 of Akahane).

### ***Conclusion***

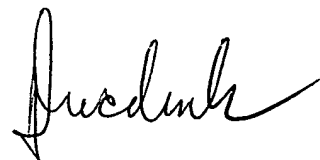
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DUC Q DINH whose telephone number is (571) 272-7686. The examiner can normally be reached on Mon-Fri from 8:00.AM-4:00.PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe can be reached on (571) 272-7691. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DUC Q DINH  
Examiner  
Art Unit 2629

A handwritten signature in black ink, appearing to read 'Duc Q Dinh', with a stylized flourish at the end.

DQD  
June 9, 2006